# CHAPTER 4

# **QUALIFICATION STANDARDS**

Introduction	. 4:2		
Guidelines	. 4:2		
Federal Qualification Standards	. 4:2		
Example Qualification Standards for:			
District Clerk	. 4:2-3		
District Secretary	. 4:3		
District Manager	. 4:3-4		
District Technician	. 4:4-5		
Water Quality Coordinator	. 4:5		
Public Information Specialist.	. 4:5-7		
Urban Conservationist	. 4:7-8		
Range Conservationist	. 4:8-9		
Engineering Technician	. 4:9-10		
Soil Conservationist	. 4:10-11		
Forester	. 4:11-12		
Exhibit 4.1 - Checklist for Developing Qualification Standards	. 4:13		
Exhibit 4.2 - Sample Qualification Standard	. 4:14		

# Introduction

Setting valid and realistic qualification standards is the first task when needing to quickly and efficiently secure a productive employee.

Qualification standards are skills, knowledge, abilities and experience required for each position. They are based on the demands of the position and are invalid if not job related.

#### **Guidelines**

Following are guidelines for establishing qualification or selection standards.

- 1. They should be based on a thorough and realistic appraisal of the job requirements.
- 2. Non-job-related items, such as race, sex, religion, etc., must be excluded.
- 3. Experience, education, knowledge, skill, legal minimum age, valid driver's license and physical condition are the major areas where selection standards can be set with reasonable objectivity. Other areas, such as personality, attitude, and judgment, are more difficult to assess but should be considered when establishing qualification standards as they are important to successful job performance.
- 4. Only those qualifications necessary for proper job performance should be included.
- 5. Requirements should be restrictive enough to weed out applicants not suited for the job but not so restrictive as to exclude (good) quality applicants.

Qualification standards should include all conditions of the appointment. For example, if selections are subject to the satisfactory results of a medical examination, that condition becomes a part of the final selection procedure and should be made known to prospective applicants.

Written qualification standards can be used to develop a job announcement. They can also be used as the basis for interviewing applicants and for developing position descriptions. See Exhibit 4.2 of this chapter for a sample qualification standard.

In the event recruitment efforts fail to find a suitable applicant, it may be necessary to revise the standards or make arrangements to provide the training necessary to meet the requirements. For example, if an applicant for a secretarial position that requires stenographic duties does not take dictation but has excellent qualifications otherwise, arrangements may be made for the applicant to enroll in a shorthand course. This could be done either at the district's or the applicant's expense. In either case, a determination has to be made as to whether to waive the requirement, provide the training, or search for another applicant.

Lowering qualification standards for a particular candidate should be avoided except in instances similar to the example cited above. Standards should never be compromised in order to hire a friend or an associate, or for any reason that is not job related.

# **Federal Qualification Standards**

This section includes some excerpts from the qualification

standards for a variety of federal civil service positions. These are presented as examples and as a source of information. Districts may wish to adopt parts or amend these standards as minimal requirements for positions to be filled. Other example standards are available through civil service offices for administrative officer, agronomist, engineer, community planner, construction inspector, engineering draftsman, soil scientist, outdoor recreation planner, and wildlife biologist.

#### **Example Qualification Standards for:**

#### **District Clerk**

**Description of Work.** The work involved is essentially the orderly processing of the papers and performance of the routine work, including typing and data entry.

Clerical work is performed within a framework of procedures, regulations, precedents, and instructions. For the most part, clerks process and maintain the records and written materials that represent the transactions or business of the office or organization served. Clerks provide a variety of supporting services to the technical, administrative or management operations. Following are basic duties performed by clerks.

- 1. Maintaining records
- 2. Receiving, screening, reviewing, preparing and verifying district documents
- 3. Searching for and compiling data
- 4. Providing information on district activities orally or by correspondence
- 5. Typing and stenography work
- 6. Computer data entry and document design
- 7. Maintaining district financial records, processing bills, receiving funds, developing reports, tax and payroll record keeping.

Any or all of these functions may be performed singly or in combination.

#### Basic Requirements. Each applicant should:

- 1. Have appropriate education and experience to be able to perform the duties of the position
- 2. Demonstrate possession of skill in typing and/or taking and transcribing dictation, and computer operation
- 3. Have basic bookkeeping skills.

## **District Secretary**

**Description of Work.** A secretary performs or supervises the performance of a variety of tasks, including performing telephone and receptionist duties; scheduling appointments and conferences; performing liaison duties as necessary; receiving and distributing incoming mail and preparing replies; channeling and reviewing outgoing mail; arranging for recording of conference and meeting proceedings; maintaining records and files; making travel arrangements for supervisors and staff; assembling and distributing

information; transmitting staff instructions; performing miscellaneous office management and clerical duties; and per-forming word processing and typing services for the supervisors and staff.

Secretarial positions may or may not require stenographic, dictation or transcribing skills.

Basic Requirements. Applicants should show reasonable experience in word processing, typing, and general clerical work, or any combination of these. Experience should have consisted of work which demonstrated possession of ability to perform secretarial work above the trainee level, including: answering telephone calls; receiving visitors; composing correspondence; obtaining and presenting information; routing incoming correspondence on the basis of subject matter; reviewing outgoing correspondence for grammar, spelling typography, and format.

The applicant's record should show experience of such quality and kind as to demonstrate successful application of progressively broader knowledge, greater judgment, and higher skills commensurate with the level of position for which the applicant is being considered. Length of experience in itself, however, should not necessarily be considered qualifying, and appropriate education may be substituted for experience as deemed appropriate.

In addition, all applicants should demonstrate possession of certain traits essential to the performance of secretarial duties. These are:

- 1. Effectiveness in getting along with others
- 2. Ability to work independently
- 3. Loyalty, integrity and discretion
- 4. Capacity and willingness to accept responsibilities
- 5. Judgment, initiative, resourcefulness
- 6. Poise, personal dignity, neatness, and good grooming.

**Evaluation of Applicants.** In evaluating applicants' qualifications for secretarial positions, consider three principal requirements that form the basis for any appraisal, rating, or ranking. These are:

- 1. The nature and scope of secretarial and other experience
- 2. Relative proficiency as a secretary
- 3. Personal qualities necessary for successful performance of secretarial work.

The method used should therefore contain procedures for rating all of these requirements.

Information concerning applicants' qualifications may be obtained from various sources, including the applicants' own application forms or employment histories, position description, supervisory evaluations, qualification vouchers, written tests, performance tests, personal interviews, work samples, and other sources.

# **District Manager**

**Description of Work.** The position of district manager requires, in most cases, a strong managerial or administrative background plus a working knowledge of the

technical aspects of soil and water conservation. It is recommended that this position be administrative in nature to complement the technical nature of the NRCS district conservationist position. If the two backgrounds complement each other, the right balance in responsibilities can be achieved with the least overlapping of duties and possible conflicts.

Individual district manager positions vary considerably. The following qualification standards suggest only the knowledge and abilities required.

#### 1. Knowledge Required

- Knowledge of local, state, and federal programs and laws that affect natural resource conservation.
- b. Knowledge of the roles of conservation districts, NRCS, and SCC in implementing local, state and federal programs.
- c. Knowledge of basic financial management techniques and practices.
- d. Knowledge of procedures for developing funding requests for local governments.
- e. Working knowledge of interdisciplinary techniques, methods and principles used when working with conservation issues.
- Knowledge of the social and economic structure and conditions in the district.

#### 2. Abilities Required

- Ability to deal effectively with various local, state and federal agencies at various levels.
- b. Ability to organize and plan work.
- c. Ability to effectively supervise subordinates.
- d. Ability to lead discussion groups.
- e. Ability to persuade or motivate groups.
- f. Ability to identify and define goals and objectives.
- g. Ability to perform with minimal day-to-day direction.
- h. Ability to undertake new endeavors.
- Ability to evaluate programs, ideas, and measures proposed to deal with soil and water conservation problems.
- Ability to manage the daily financial operations of the district.
- k. Ability to work effectively in stressful situations.

The knowledge requirements detailed above can be obtained through formal education and/or experience. Because of increased public awareness and scrutiny of district programs and the wide variety of programs and people with which the district manager must deal, some districts may require formal education for this position. For such districts, the following information is provided.

A variety of courses of study leading to a bachelor's or higher degree will satisfy most knowledge requirements. Such courses include, but are not limited to, regional planning, political science, agricultural education, economics, public administration, sociology, landscape architecture, natural resource management, recreation land management, and business administration. Technical courses of study, such as soil conservation, forestry, range management, biology, soil science and engineering, should also be considered as qualifying, provided the candidate has the necessary administrative background to perform in the position.

The suggested qualifications reflect a person operating at full capacity. Sometimes recruitment efforts fail to produce such an individual. If the requirements cannot be met, other experience and training indicating an applicant has the capacity and willingness to meet the qualifications can be substituted.

#### **District Technician**

**Description of Work.** District technicians apply knowledge of soil conservation methods, techniques, practices, and agricultural land use. They perform work such as the following:

- Advise landusers on the installation and maintenance of conservation practices like strip cropping, contouring, seeding, terracing, and irrigation and drainage systems
- Gather planning data for use in development of conservation plans
- Conduct follow-up visits with landusers to further advise and assist on the installation or maintenance of conservation practices; to recommend adjustments or revisions to conservation plans; and to determine acceptability of installed practices involving cost sharing or lease agreements
- 4. Provide information on soil and water conservation practices, benefits, and activities to local individuals, groups, or news media.

**Basic Requirements.** Applicants should have had basic experience or education with general farm operations, equipment, and terminology that will allow development of skill in laying out conservation practices, gathering farm resource data, and dealing with landusers. The following are examples of qualifying general experience in addition to experience providing a basic knowledge of general farm operation, equipment, and terminology.

- 1. Range conservation aide
- 2. Irrigation systems operator
- 3. Surveying aide
- 4. Forestry aide
- Biological aide
- 6. Engineering aide
- 7. Plant pest control aide
- 8. Construction inspection aide draftsman
- 9. Job corps experience on forestry or conservation projects.

For higher-level positions this experience should have provided knowledge and skills needed for advising landusers on the installation and maintenance of soil and water conservation practices. The work must have provided knowledge of conservation practices, knowledge of equipment used for installing and maintaining conservation

practices, and a basic understanding of agricultural land use. The following are examples of qualifying specialized experience:

- Engineering or forestry experience which involved the installation and maintenance of soil and water conservation practices on nonfarm or ranch lands and which, when combined with the required knowledge of farm operations and equipment, provide the essential knowledge and skills needed for successful performance of the work.
- Farming or ranching experience which involved installation and maintenance of soil and water conservation practices, including knowledge of equipment used in installing and maintaining conservation practices, and which provided a basic understanding of agricultural land use.

**Guide for Evaluation of Applicants.** Applicants for beginning level aide positions should have the ability to use high school level mathematics, the ability to read and understand instructions and procedures, the ability to learn soil conservation aid duties, and the ability to work as a member of a team.

At higher levels, district technicians need to know and be able to apply, or possess, knowledge, skills and abilities such as:

- 1. Installation and maintenance of conservation practices.
- 2. Equipment operation used for installing and maintaining conservation practices.
- 3. Experienced judgment in selecting technical guidelines and reference materials, including precedents.
- 4. Ability to meet, deal, and maintain friendly relations with farmers, ranchers and other members of the community.
- 5. Agricultural land use practices and ability to gather planning data.
- 6. Use and understanding of basic surveying instruments.
- 7. Basic soil fertility and crops.
- 8. Understanding and use of aerial photographs and topographic maps.

#### **Evaluation of Education and Experience.**

Consider the amount of knowledge, skills, and abilities useful in the position to be filled. Such knowledge and abilities may have been obtained in courses related to the position, internships or through on-the-job training.

In ranking individuals, detailed facts about the position requirements need to be established. For a specialized position, experience gained in the particular duties required should normally be ranked as highest quality. Experience in work that is similar to the duties of the position but in a less closely related occupation generally should be ranked at a lower level.

# Water Quality Coordinator

Description of Work. Water Quality Coordinator performs

work, as defined and approved in Non-Point Source Pollution Project Work Plans, to implement the local NPS Pollution Control Program. This position is responsible for personal contacts, information and education activities, and assists landowners to implement pollution control practices.

Other duties include: Develop and implement NPS Project Work Plans; coordinate and develop good working relations with groups and agencies involved in the NPS Pollution Control Program; use all available news media for water quality awareness; present information programs and conduct tours and demonstrations of completed projects; type and assemble correspondence; complete NPS cost-share forms; prepare monthly activity report and present summary to conservation district at monthly meetings.

Duties vary for implementation needs as defined in approved NPS Project Work Plans, other duties not listed here may be required to carry out the NPS Project Work Plans.

**Basic Requirements.** Applicants should have background in agriculture and soil and water conservation. This background could be experience or education or a combination of both.

Applicants should have a high school education or a GED certificate as a minimum requirement. A working knowledge of modern office equipment, the ability to communicate effectively, organize and plan work, and work well with people, is required.

Additional training will be provided as needed by the conservation district, the Natural Resources Conservation Service and the State Conservation Commission.

Coordinator is expected to attend all local and state meetings related to the NPS Pollution Control Program and regular meetings of the conservation district to give a monthly progress report.

## **Public Information Specialist**

Description of Work. Public information officers and specialists perform work involved in distributing information about government programs to the general public and to especially affected or interested individuals by means of public information channels such as newspapers, radio and television stations, and magazines of general circulation. They also work with organized groups of individuals affected by government programs in order to inform them about the work of the government and to encourage the members of the organization to inform members of the general public. Public information officers and specialists also advise agency program officials about the degree of public understanding about government programs; they participate in planning how the government agency can most effectively use a public information program to carry out its statutory responsibilities.

**Basic Requirements.** Experience or education enabling the applicant to:

 Establish and maintain effective relations with public information and communication media such as the daily or weekly press, radio and television stations, magazines of general circulation, or with organized

- groups who use information about an organization's activities.
- Organize, plan, and conduct a program to distribute information about the activities and plans of an organization to the public-at-large, or to individuals especially affected by the organization's work.
- 3. Evaluate the styles of presentations, and effects of written materials, photographs, illustrations, exhibits, radio, video, or television material in terms of its public information value.

In addition to this knowledge, some positions require experience in writing and editing materials designed for a specific public information medium or a combination of media

All positions require the ability to write, rewrite, and edit public information.

**Examples of Qualifying Experience**. In addition to the performance of work characteristic of the public information specialist, there are several other kinds of qualifying experience that demonstrate the ability to perform public information work successfully.

- Experience in writing and editing for one of the information media such as newspapers, radio, television, or magazines of general circulation is qualifying only when it has also required the applicant to determine:
  - a. What kind of information can best be communicated to the audience by the particular medium involved, and
  - b. How to present the information so as to make the best use of the medium in terms of the particular purposes involved.
- 2. Experience in institutional advertising is qualifying when the experience has involved furnishing information about the social or economic values that the institution fosters, and the long-range importance of its activities to the nation. Institutional advertising is similar to the public information work that is carried out by government agencies in that it explains the role of an institution in the national network, (such as the steel or oil industry, a corporation or a trade, professional, or social service association). Institutional advertising must be distinguished from advertising aimed primarily at selling specific products or services.
- 3. Writing of advertisements designed specific-ally for one of the public communications media that has involved determination similar to those described in 1 and 2 above, is qualifying up to a maximum of one year of such experience. This limitation is imposed because government public information work differs in approach, basic philosophy, and objectives from advertising aimed at selling specific products and services. Experience composed wholly of such writing of advertising copy would not by itself demonstrate the personal characteristics and ability to perform government public information work successfully.

**Criteria Used in Rating Experience.** The quality of the pertinent experience and training will be evaluated in terms of the following factors that are appropriate to the positions to be filled.

- 1. Effective establishment and maintenance of cooperative relations with representatives of informational media and organized groups.
- Ability to forecast probable audience reaction to the content, or to the method of presentation of informational material.
- 3. Ability to recognize the significance of an organization's activities, achievements, and plans, and to present this information to the public in terms of the organization's long-range objectives.
- 4. Ability to plan and organize public information programs using public media and the cooperation of interested or affected organized groups.
- 5. Ability to determine appropriate information media for reaching specific audiences, and for use by organized interested groups, and the news media.
- 6. Ability to subsequently develop, including writing and editing, informative materials for specific media.
- 7. Ability to judge the informational value and effectiveness of written materials.

#### **Urban Conservationist**

**Description of Work.** Urban Conservationists must first have an understanding of natural resource sciences such that they can best meet present and future public needs by studying the interrelationships of the specific ecosystem found within and around an urban development. Their goal is to develop environmental management plans to enhance and conserve those natural resources whether wildlife, native vegetation, soils or clean water. Specific duties include:

- Research and develop new, innovative practices for controlling erosion, sedimentation, improving water quality, enhancing wetlands, wild areas and etc.
- Assist with design and layout of conservation practices such as terraces, diversions, drainage ditches, irrigation systems, grass waterways, earth dams, grade stabilization or other water control structures.
- Draft environmental management plans for the specific ecosystem including storm water control, erosion control, water quality improvement, riparian protection and wetland protection in accordance with local, state and federal laws and regulations.
- Consult with engineers, applicants, and any municipal, county, state or federal agency as necessary to approve a viable plan for site development, and carry out all associated
- Course work in an accredited university or college with major study in environmental planning, agronomy or other natural resource science field with minor course of study in communications or education which included at least 30 semester hours.

- administrative duties up to and including plan certification.
- 5. Conduct field inspections of construction and other developing sites during or after project completion, to determine degree of compliance with the environmental plan.

Urban conservationists must also be able to communicate and educate the public effectively as to the types of interrelationships present in their urban area, and methods useful to conserve and enhance the local ecosystem. Duties include:

- Maintain positive and clear communication channels with the district supervisors, district manager, construction site supervisors, and other involved public supervisors using clear, accurate and detailed inspection reports, program reports and other necessary correspondence.
- Maintain cooperative working relationships with all resource agencies regarding district programs and accomplishments including those relating to landusers such as developments, schools, and other government buildings.
- 3. Work with concerned citizens, parks and communities to provide education on local home conservation projects and methods.
- Conduct training workshops, give presentations, and provide technical information regarding urban conservation programs and methods to the general public, government officials, builders, developers, engineers, and architects.
- Assist with and stimulate the development of urban conservation through development of educational programs, tours, slide pro-grams, handouts, booklets and fact sheets, radio and television broadcasts, and news releases.

**Basic Requirements.** Applicants should demon-state successful completion of the requirements in points 1 or 2 below:

1. Four or more years of study in an accredited college or university leading to a bachelor's or higher degree with major study in environmental planning, agronomy, natural resource sciences or other related field with a minor or option in communication or education. This course of study must have included at least 30 semester hours, or the equivalent, of course work in any combination of the plant, animal, and soil sciences, environmental planning and communications. The applicant shall also have a minimum of three years of professional and technical experience as an inspector of urban developments or in urban, regional or rural environmental planning at the local government level.

or the equivalent, in subjects as specified under point 1; plus enough additional education or experience to total four years of education or four years of combined education and experience. The quality of such additional education or experience must have

been sufficient to give the applicant technical knowledge equivalent to that acquired through successful completion of the degree and experience requirements described in point 1.

**Guide for Evaluation of Applicants.** The basic requirements above will minimally qualify an applicant for this position. Applicants who possess the following skills, however, can be considered fully qualified for an urban conservationist position.

#### 1. Environmental Planning Skills

- An understanding of topography, soil types, aerial photography, ecosystems, vegetative features, seasonal influences; and the ability to identify wetlands, wildlife, plant life and major ecotypes.
- b. Working knowledge of soil and water conservation principles and problems in the local urban area, and of successful soil erosion control and water quality improvement methods.
- c. Familiarity with the Best Management Practices as defined by the USDA Natural Resource Conservation Service and knowledge of when and how to use them for the prevention of mass erosion and the general betterment of natural resources in an urban setting.
- d. Knowledge of planning principles and techniques; current trends, laws, policies and programs concerning urban and regional planning; environmental, social and other problems which could impact the development of urban planning.
- e. Familiarity with local, state and federal regulations, legislation, and structure.
- f. General knowledge of construction techniques.

#### 2. Communications Skills

- a. Ability to work with the citizens and public.
- Have expert communication and presentation skills to assist with environmental planning meetings for city and county officials.
- Ability to maintain effective working relationships with government officials at all levels
- d. Ability to communicate technical matters clearly and effectively both orally and in writing with engineers, contractors, architects, developers and city officials.

## **Range Conservationist**

**Description of Work.** Range Conservationists perform professional and scientific work to best meet present and future public needs by managing rangeland resources; including soils, water, forage for domestic and wild animals, and wild-life; through the use of various land inventories. Range management includes improving, protecting, using and managing these natural resources, regulating grazing on public rangelands, developing cooperative relationships with range users and other groups, assisting landowners to plan and apply range conservation programs, and developing

technical standards and specifications for range conservation and management.

**Basic Requirements.** Applicants should demonstrate successful completion of the requirements in points 1 or 2 below:

- 1. Four or more years of study in an accredited college or university leading to a bachelor's or higher degree with major study in range management or closely related field. This course of study must have included at least 30 semester hours, or the equivalent, of course work in any combination of the plant, animal and soil sciences and natural resource management. At least 12 of these 30 semester hours must have been in range management.
- 2. Course work in an accredited university or college with major study in range management or range conservation or in a closely related field which included at least 30 semester hours, or the equivalent, in subjects as specified under point 1; plus enough additional education or experience to total four years of education or four years of combined education and experience. The quality of such additional education or experience must have been sufficient to give the applicant technical knowledge equivalent to that acquired through successful completion of the degree requirements described under point 1.

Guide for Evaluation of Applicants. When evaluating relative qualifications of applicants, consider the extent, nature and content of their basic education. The required education stated in point 1 is only the minimum education a person must have to be able to learn and perform range conservation or range research work. An applicant with only the type and amount specified is rated eligible but is considered only minimally prepared for the work.

Listed below are education options which can enable an applicant to be more than minimally prepared for range conservation or range research work. Often, those best educationally suited to advance in any range conservation program will have completed many of these options.

Therefore, in rating applicants, it is important to consider whether their education included all or some of these options:

- 1. Substantially more than the minimum 30 semester hours required, with work in range conservation courses totaling substantially more than the minimum 12 semester hours required.
- 2. Course work, aside from the concentrated range conservation subjects, in each of the plant, animal, and soil sciences listed below:
  - **a. Plant Sciences:** botany, systematic botany, or taxonomy; plant ecology; plant physiology
  - Animal Sciences: animal nutrition, or feeds and feeding
  - **c. Soil Sciences:** Nature and properties of soils and effects on plant growth.
- Range management courses in each area listed below:

- **a. Range Plants:** identification, values or detriments to livestock and wildlife, range plant communities, responses to grazing treatment, climate and soil
- **b. Range Analysis:** vegetation inventorying or sampling, determination of range condition and trend
- c. Range Resource Management: grazing management systems, range developments and improvements
- **d. Ranch Operation and Economics:** range and ranch planning and management.
- 4. Some study in related fields such as:
  - **a. Wildlife Resources:** nutritional needs of wildlife, habitat and cover, wildlife management, wildlife biology
  - b. Watershed Conservation and Management: water conservation and quality; water distribution (eg., groundwater hydrology); land forms (eg., geomorphology) and vegetation and their affect on watersheds; weather and climate (eg., meteorology or climatology); structural and cultural land treatments
  - **c. Resource Management:** forestry, outdoor recreation, multiple-use management of resources.
- 5. Supporting courses such as biology, zoology, chemistry, physics, surveying, college mathematics, statistics.
- 6. Directly useful subjects such as public speaking, technical writing, psychology, sociology, economics, and public or business administration.

# **Engineering Technician**

**Description of Work.** Engineering aides and technicians perform technical work in research, development, test, design, or other engineering functions. Their work is allied to one of the branches of engineering such as civil, electrical, agricultural or mechanical. Typical duties include testing engineering materials and equipment; performing calculations; setting up and operating laboratory equipment and instruments; preparing technical reports, plans, specifications, and estimates.

In lower level positions, employees typically work as aides to professional engineers, scientists, or higher grade technicians. At the higher grades assignments may be comparable in difficulty to those of a professional engineering position. Positions in this occupation do not require training equivalent in type and scope to a professional engineering curriculum.

**Basic Requirements.** Applicants should have experience or education sufficient to develop skills in making measurements, using test instruments, computing, reading engineering drawings or specifications, or other engineering technician work. The following are examples of qualifying general experience:

- Apprentice training with instruction in mathematics, mechanical drawings, drafting, estimating, or other work related to that of technicians
- 2. Rodman, chainman, notekeeper, or instrument man of a surveying team
- Draftsman or aide to an engineer, architect, or scientist
- Laboratory mechanic or aide assisting in conducting tests or operating instruments.

**Guide for Evaluation of Applicants.** Candidates for beginning level engineering aide positions should have the ability to use high school level mathematics, read and understand simple specifications, instructions, and procedures, and learn engineering technician duties.

At the higher levels, engineering technicians should know and be able to apply, in increasing measure, practical knowledge, skills, and abilities, such as:

- 1. Ability to read and interpret engineering and architectural plans and specifications.
- 2. Knowledge and ability to use engineering formulas and measurement systems in the specialty field.
- 3. Knowledge of engineering instruments, equipment, and systems appropriate to the specialization and including, in some instances, calibration skills.
- 4. Knowledge of testing procedures and techniques in the applicable specialization.
- 5. Ability to design work in the specialization.
- 6. Ability to prepare analytical reports.
- Knowledge of construction, fabrication, or manufacturing techniques and procedures.
- 8. Knowledge of safety practices.
- 9. Ability to communicate effectively with technicians, mechanics, engineers, and public officials.

**Evaluation of Education Experience.** Evaluation of education and experience logically includes the degree and scope of the candidate's knowledge, skills, and abilities which can be brought to bear upon duties of the position to be filled or in the area of specialization of the positions. Such knowledge and abilities may have been obtained on the job or in courses related to the position.

In ranking individuals, detailed facts about the position requirements need to be established. For a position that requires specialized knowledge and abilities, experience gained in the same or directly related field should normally be ranked as highest quality. Experience in work which is similar to the duties of the position, but in a less closely related field, should be ranked at lower levels, or as non-qualifying, depending upon the extent of relatedness and needs of the position.

#### Soil Conservationist

**Description of Work.** Soil conservationists perform the following types of professional work:

1. Advise and work with landusers to develop conservation plans for farms, ranches, housing developments, public buildings, air-ports, recreation areas and other land uses.

- 2. Advise and work with district supervisors to develop a comprehensive conservation program which serves a number of communities.
- Advise and work with government agencies or private groups to develop broad plans and recommendations for the orderly development of local natural resources.
- 4. Coordinate broad rural developments or multipurpose development projects.
- Manage broad natural resource conservation programs.

**Basic Requirements.** Applicants for positions at all levels should show successful completion of paragraph 1 or 2:

- 1. Four years of study in an accredited college or university leading to a bachelor's or higher degree with major study in soil conservation. One of the closely related natural resource or agricultural fields, such as agronomy, forestry, wildlife biology, regional planning, agricultural education or agricultural engineering may be substituted. The study should have included the equivalent of 30 semester hours, in natural resources or agricultural fields including the equivalent of a three semester course in soils.
- 2. The equivalent of at least 30 semester hours of course work in one or more of the fields listed above in point 1; including the equivalent of a three semester hour course in soils; plus additional education or experience which, when combined with the 30 semester hours of course work, will total four years of education or combined education and experience. The quality of such education or experience should have been sufficient to give the applicant professional knowledge equivalent to that acquired through the successful completion of four years of study described in point 1.

#### Guide for Evaluation of Applicants.

#### 1. Education

Because soil conservation positions require application of methods and skills from a variety of disciplines, broad, general, natural resource educations that provide knowledge about the entire ecosystem are more valuable than educations that provide advanced knowledge and skills in specialized subjects. Valuable specializations may be obtained in the following areas: general education courses in public administration or political science, economics, public speaking, civil engineering, surveying, English composition, and sociology or psychology. Introductory courses in forest soils management, forest soils and soil fertility are examples of qualifying courses in soils. Courses in the physical sciences or engineering, such as geology, civil engineering and hydrology, may also be qualifying. In any case, the required course work should have included a complete introduction to soils.

#### 2. Experience

Experience gained in a specialized field such as soil science, forestry, agronomy or from closely related

fields can be fully acceptable as experience gained in soil conservationists positions. This is especially true for experience that involved application of specialized knowledge and skills toward the solution of a variety of soil and water conservation problems, requiring not only knowledge of the objectives and goals of soil and water conservation, but also knowledge of the interdisciplinary approach to soil and water conservation problems. Regardless of how acquired, experience that involved the use of techniques, principles and methods from a variety of agricultural and natural resource fields are especially valuable because of the interdisciplinary nature of this occupation.

#### 3. Personal Abilities and Characteristics

There are differences in emphasis or orientation among soil conservation positions. One position may require demonstrated abilities in personal communication and leadership. Another may emphasize planning and technical skills. Still another may require all of these skills, none of which significantly outweighs the others in degree of importance. These differences make it desirable to identify the specific skills appropriate to a position or group of positions, and to evaluate applicants with respect accordingly.

Following are some of the abilities and personal characteristics most important in soil conservation positions. They may be given weight as appropriate for the position for which being considered.

- a. Planning ability
- b. Coordinating ability
- c. Leadership ability
- d. Ability to persuade or motivate groups
- e. Initiative and resourcefulness
- f. Managerial ability
- g. Supervisory ability
- h. Public speaking and public relations abilities
- i. Writing ability
- j. Drive and enthusiasm
- k. Adaptability
- 1. Ability to work with others on a team
- m. Ability to work with certain population group

#### Forester

**Description of Work.** Foresters perform professional and scientific work to best meet present and future public needs by studying and managing the interrelationships of the forest ecosystem and resources: timber, water, forage, wildlife, public recreation, soils, minerals, and land. The forester's role includes maintaining, (and developing if necessary), a continuous forest ecosystem inventory which provides data at regular intervals for the purpose of accurately describing the current state of the ecosystem. Based on this knowledge, management plans can be developed to protect resources against fire, insects, diseases, floods, erosion, trespass, and other depredations; and benefit the entire ecosystem

including animal husbandry, wildlife, water quality and aesthetics. Foresters must be able to effectively use computer programs and forest ecosystem databases that contain information needed to prepare management plans. They must also be able to effectively communicate these plans to the forest owners and concerned public citizens.

**Basic Requirements (for all grades).** Applicants should show successful completion of points 1 or 2 below as well as demonstrate an understanding of computer use and programming skills.

- Four or more years of study in an accredited college or university leading to a bachelor's or higher degree with major study in forestry or a closely related field. This course of study must have included at least 24 semester hours, (or the equivalent), of course work in forestry, diversified sufficiently to encompass at least four of the following areas.
  - **a. Silviculture:** forest soils, forest ecology, dendrology, silvics, silviculture;
  - **b. Forest management:** mensuration, forest regulation, forest management;
  - **c. Forest protection:** fire protection, forest pathology, forest entomology;
  - **d. Forest economics:** forest finance, forest evaluation, forest economics;
  - **e. Forest utilization:** logging, milling, forest products, preparation and use of wood;
  - **f. Related studies:** forest engineering, forest recreation, range management, watershed management, and wildlife management.

To assure proper diversification of course work, not more than six semester hours credit will be given for courses in any of the areas listed above.

2. A total of at least 30 semester hours of course work in an accredited college or university in any combination of engineering, biological, physical or mathematical sciences of which at least 24 semester hours are in forestry, as prescribed in point 1 above; and where the study has been supplemented by four years of education or experience and education of the following quality. Any additional experience and education must have been such that, when combined with the required 30 semester hours of course work in science or engineering, it gives the applicant a professional knowledge of forestry comparable to that acquired through the successful completion of the degree requirements described in point 1 under Basic Requirements.

Guide for Evaluation of Applicants. When evaluating the relative qualifications of applicants, consider the following factors.

#### 1. Nature, Extent, and Quality of Education

This is of primary importance in evaluating the qualifications of applicants for positions at lower levels. Though important at higher levels it is subordinated to professional capability demonstrated through experience. The extent to which forestry courses satisfy or exceed minimum requirements, and

to which the applicant is prepared in related and fundamental fields, are also important. Consideration should be given to the quality of the educational institution such as non- accredited college, college accredited by regional accrediting association, or accredited college in which the forestry program meets the high standards of the professional accrediting organization, that is, the Society of American Foresters. In evaluating quality of education, its recency is also important.

# 2. Nature, Level, Recency and Progressiveness of Experience

All factors being equal, the best experience is that which shows normal progression in duties and responsibilities at least to a level demonstrating the applicant's ability to per-form successfully at the level being considered. Experience that has not progressed steadily in difficulty and responsibility can be a detracting factor.

#### 3. Accomplishments

Consideration of the applicant's demonstrated knowledge in forestry and related sciences, of professional interests as shown by self-development activities, of stature in the profession, and professional accomplishments should also be considered.

Foresters, as they advance in level of responsibility, are expected to engage in continuing and professional development as a method of keeping abreast of the field. Lack of evidence of this development may legitimately be considered as detracting from the overall quality level assigned. Accomplishments should be appraised by considering the opportunities afforded by past assignments and the level of them.

#### 4. Personal Abilities, and Characteristics

Following are some abilities and personal characteristics most important in forestry positions. They may be weighted as appropriate for the position being considered.

- a. Creativity
- b. Reasoning ability
- c. Ability to communicate effectively in writing, orally and graphically
- d. Resourcefulness
- e. Planning ability
- f. Initiative
- g. Managerial ability
- h. Supervisory ability
- i. Drive and enthusiasm

# **EXHIBIT 4.1 CHECKLIST FOR DEVELOPING QUALIFICATION STANDARDS**

ITEM		COMPLETED
1.	Determine if qualification standards already exist.	
2.	Secure a copy of position description.	
3.	If no position description exists, list the items or duties that should be accomplished by the position.	
4.	List the knowledge that the applicants must have for consideration. Relate to this education and experience.	
5.	List the skills necessary to perform the duties of the position. Skills are normally associated with developed proficiency or dexterity in some art, craft, or trade, or the operation of a machine.	
6.	List the abilities necessary to perform in the job, such as the ability to speak before groups.	
7.	List the conditions for employment such as residence in the district, successful completion of a medical examination, possession of a valid driver's license, etc.	
8.	Check to ensure that all qualifications are based on merit principles. See Chapter 1.	
9.	Review the above listed items to ensure all items are job related and are neither less nor more restrictive than necessary.	
10.	Compare qualification standards that are developed with positions in the state or local units of governments.	
11.	Review with the State Conservation Commission, NRCS and others who will work with the person selected.	

#### **EXHIBIT 4.2 SAMPLE QUALIFICATION STANDARD**

#### HAPPY COUNTY CONSERVATION DISTRICT

Position: District Technician

Duties: 1. Advise landusers on the installation of conservation practices, such as

- grassed waterways - minimum tillage - pasture maintenance

- diversions - contour farming - ponds

- tile drainage - terraces

Conduct follow-up visits with landusers to advise on the maintenance of conservation practices and revisions of planned practices.

3. Provide information on soil and water conservation practices, benefits and activities to individuals, groups and the news media.

Knowledge Required:

Knowledge of the general farm operations, crops, equipment, and terminology used in the area. Familiarity with the equipment used to install conservation practices. To qualify, applicants must have completed at least a two-year course in agricultural technology, surveying, conservation or some closely related course work or possess equivalent experience.

Skill Required: Skill in using the dumpy level, survey rod, survey chain, hand level, laser level, and abney level. Skills

similar to those listed are qualifying if they indicate the applicant could quickly learn to use the

required instruments.

Ability Required: Ability to meet and deal with individuals and groups in furthering conservation work.

Conditions of

Employment: Applicants must possess a valid State driver's license, be 18 years of age or older, and pass a medical

examination prior to employment with the district.